Exercise 299

The number of bacteria N in a culture after t days can be modeled by the function $N(t) = 1300 \cdot (2)^{t/4}$. Find the number of bacteria present after 15 days.

Solution

Plug in $t = 15$ and use a calculator.

$$N(15) = 1300 \cdot 2^{15/4} \approx 17491$$